

U.S. Patent Application No. 09/803,225
Amendment dated September 30, 2003
Office Action dated June 30, 2003

REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The amendment to the claims further defines what the applicant regards as the invention. Full support for the amendment can be found throughout the present application as originally filed, for instance, at page 3, lines 7-9 and page 11, lines 2-4. Accordingly, no questions of new matter should arise and entry of the amendment is respectfully requested.

Claims 1-8 and 10-23 are pending in this application. Claim 9 has been canceled.

At page 2 of the Office Action, the Examiner rejects claim 1 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. According to the Examiner, claim 1 is incomplete. The Examiner suggests amending claim 1 to recite that the polymer is used for retention. For the following reasons, this rejection is respectfully traversed.

Though claim 1 is clear and definite, the claim now recites that the polymer is a drainage polymer, retention polymer, or both. This is fully supported by the specification at page 11, lines 2-4. Accordingly, this rejection should be withdrawn.

At page 2 of the Office Action, the Examiner objects to claims 2-8 and 10-16 as being dependent upon a rejected base claim. However, the Examiner indicates that these claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

The applicant and the undersigned appreciate the Examiner's indication that claims 2-8 and 10-16 would be allowable if rewritten in independent form, including each of the limitations of the base claim and any intervening claims. The applicant believes that in view

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of the comments set forth above with respect to the patentability of claim 1, claims 2-8 and 10-16 are in condition for allowance.

At page 2 of the Office Action, the Examiner indicates that claims 17-21 are allowed. The applicant and the undersigned appreciate the Examiner's indication that claims 17-21 are allowed.

At page 2 of the Office Action, the Examiner rejects claim 22 under 35 U.S.C. §103(a) as being unpatentable over Smith, Jr. (U.S. Patent No. 5,221,435) in view of Braitberg (U.S. Patent No. 3,234,075) or Bugosh (U.S. Patent No. 2,917,426). The Examiner indicates that the rejection set forth in the Office Action dated December 19, 2001 (Paper No. 7) is repeated, and further indicates that the remarks of the applicant have been fully considered, but were not found to be persuasive. The Examiner asserts that while the addition of cationic fibrous colloidal alumina microparticles prior to the addition of the retention polymer to the pulp stock patentably distinguishes the method from the prior art, the final product is not patentably distinguishable since the final product contains the retention polymer and cationic alumina microparticle. For the following reasons, this rejection is respectfully traversed.

Smith, Jr. ("Smith") relates to a paper product formed from a mineral filler containing cellulosic slurry. The process of Smith requires the shear stage to be interposed between the flocculation addition and the microparticle, which is an inorganic cationic source of aluminum. The cationic charge-biasing species in Smith are cationic polymers, such as cationic nitrogen polymers and acrylamide. Smith only shows the use of a cationic source of aluminum. There is no mention of fibrous alumina. Therefore, Smith does not teach or suggest using fibrous cationic colloidal alumina microparticles or

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the use of nonionic polymers.

With respect to Braitberg, this patent relates to a method and composition for the control of slimes generally, and pitch particularly, in the recirculating water of pulp and paper mills. The agent used in Braitberg for controlling slimes in an aqueous media is a cationic colloidal alumina in fibrous form. Controlling pitch and the retention of paper-pulp fines are two different techniques, and not easily combinable. It is unlikely that one skilled in the art would combine Braitberg with Smith for this reason. Braitberg, at column 2, mentions that the use of alum in paper mill waters tends to precipitate the pitch in sticky agglomerated form that constitutes a more troublesome slime than the original pitch itself. This is not related to the process of Smith. Braitberg adds a cationic colloidal fibrous alumina in macromolecular form to the aqueous media. Also, Braitberg does not teach or suggest a retention system polymer comprising of cationic or nonionic polymers in combination with fibrous cationic colloidal alumina microparticles.

Given that the main purpose of Braitberg is to flocculate the pitch and other impurities in the pulp water as a result of slime, one skilled in the art would not be motivated to add any other ingredients that may interfere with this control of slime prior to being mixed with pulp. Accordingly, one skilled in the art would not look to Braitberg for any solutions or substitutions in view of Smith. In other words, one skilled in the art would not use any of the cationic fibrous material in Smith because Smith does not teach or suggest the use of any fibrous material. Furthermore, Braitberg relates to controlling slime prior to being mixed with pulp and Smith specifically relates to using polymers with certain types of microparticles in making paper. Smith and Braitberg patents are not related and, in fact, relate to solving different problems, thus one skilled would not

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combine the two teachings of the two patents. Furthermore, Smith does not teach or suggest a paper or a paperboard that includes fibrous cationic colloidal aluminum microparticles. Accordingly, Smith and Braitberg are not combinable and do not individually teach or suggest the claimed invention.

With respect to Bugosh, this patent relates to felted products and to processes for preparing the same. Bugosh uses fibrous alumina monohydrates to make a useful binder for felted products having a variety of useful and superior properties. There is no teaching or suggestion in Bugosh of using cationic or nonionic polymers. Thus, one skilled in the art would not be motivated to combine Smith with Braitberg or Bugosh to make the claimed invention that uses a specific combination of a polymer with a microparticle. The Examiner is essentially trying to use hindsight to recreate the invention. In essence, the Examiner is using the cited art as a mosaic to piece together the invention, which is not a proper obviousness rejection according to Federal Circuit decisions. Accordingly, this rejection should be withdrawn.

At page 2 of the Office Action, the Examiner rejects claim 23 under 35 U.S.C. §103(a) as being unpatentable over Smith in view of Braitberg or Bugosh as applied to claim 22 and further in view of Sippel (International Published Application No. WO 97/41063). The Examiner indicates that the rejection set forth in the Office Action dated December 19, 2001 (Paper No. 7) is repeated, and further indicates that the remarks of the applicant have been fully considered, but were not found to be persuasive. For the following reasons, this rejection is respectfully traversed.

The comments above with respect to Smith, Braitberg, and Bugosh apply equally here. With respect to Sippel, this application relates to a salt of boehmite alumina

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suitable for use in dyeing and purifying a waste stream or effluent. According to Sippel, placing a cationic fibrous acetate salt of boehmite alumina in contact with a dye waste stream leads to flocculation or precipitation of the dyes without contamination of the stream with other ionic species. Sippel relates strictly to the use of cationic fibrous acetate salt in dyeing fabrics. Furthermore, as part of this dyeing, Sippel uses a salt of boehmite alumina in purifying a waste stream or effluent. Sippel has nothing to do with using the particular cationic fibrous acetate salt in papermaking nor does Sippel teach or suggest the advantages of a paper or paperboard made from a drained paperweb having a treated pulp that includes fibrous cationic colloidal alumina microparticles having a cationic fibrous acetate salt with the various cationic or nonionic polymers as set forth in the claim 23 of the present application. Sippel is non-analogous art because it does not relate to the particular technology area of the claimed invention. Thus, one would not even look to Sippel for any solutions with respect to the deficiencies of Smith, Bugosh, or Braitberg. Furthermore, claim 23 is dependent directly on claim 22. Therefore, the reasons set forth above with respect to the patentability of claim 22 would also apply here. Accordingly, the rejection under 35 U.S.C. §103(a) over Smith in view of Sippel, Braitberg, or Bugosh should be withdrawn.

The applicant believes that all the pending claims are patentable over the cited references; however, the Examiner is invited to contact the undersigned by telephone, if there are any remaining questions as to the patentability of the present claims.

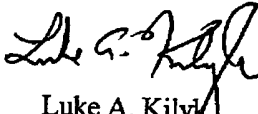
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CONCLUSION

In view of the foregoing remarks, the applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,


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